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Three hundred and thirteenth meeting.

December 6, 1848. — MONTHLY MEETING.

The PRESIDENT in the chair.

The Corresponding Secretary read a letter from Professor Salisbury, of Yale College, accepting the fellowship of the Academy, which was conferred at the last quarterly meeting.

He also announced the donation of the first volume of the *Smithsonian Contributions to Knowledge*, accompanied by several documents stating the purposes of the Smithsonian Institution, and making certain inquiries respecting the library, &c., of the American Academy.

Hon. Nathan Hale was appointed a member of the Committee on Meteorology, to fill the vacancy left by the decease of Dr. Hale.

Mr. Everett announced that, on the 25th of November last, Mr. George P. Bond discovered a new comet, the seventh which he had discovered independently of other observers. In this instance, such was the velocity of the comet, and its position in respect to a star in the field of view, that Mr. Bond was able to see the comet *actually move* ; — this, it was said, had never before been a matter of direct observation in the case of any of the heavenly bodies.

Mr. Everett also announced the transmission of the King of Denmark's comet-medal to Miss Mitchell.

The committee on the distribution, &c., of the Academy's publications made a report upon the subject, and proposed the following resolves, which were adopted.

1. " That the forthcoming volume of the *Memoirs of the Academy* (Vol. III., New Series) be furnished, on application, to Fellows of the Academy resident in the United States at such distance from Boston that they are not liable to the payment of annual dues, on the payment of three dollars per copy, and the preceding volumes at two dollars per copy.

2. " That the fourth article of the third chapter of the Statutes be amended, so that it shall read as follows, viz. : — ' It shall be the duty of the Corresponding Secretary, with the advice and consent of the

President, to distribute copies of the Memoirs to the Fellows of the Academy resident in foreign countries as they shall deem expedient.'

3. "That five hundred copies of the fourth volume (New Series) be printed, of which one hundred shall be furnished to the authors of the memoirs respectively, for immediate distribution."

Three hundred and fourteenth meeting.

January 2, 1849. — MONTHLY MEETING.

The PRESIDENT in the chair.

Dr. Charles T. Jackson stated that he had discovered the presence of manganese in the water of streams, &c., almost universally. He had detected it in water from the middle of Lake Superior, in Cochituate water, &c. It has usually been regarded as iron in previous analyses. He regarded the observation as having an important bearing in accounting for the deposits of bog manganese at the outlets of lakes and in bogs, as well as for the source of the oxide of manganese in the blood.

Dr. Jackson also remarked upon the importance of having permanent marks fixed along our coast, at mean low water, to serve as a future indication in respect to the elevation or subsidence of the land. It was thought that the proper observations might best be made, and the marks fixed, by the United States Coast Survey. On motion of Dr. Jackson, a committee, consisting of Dr. Jackson, Mr. Desor, and Dr. Gay, was appointed to confer with the proper authorities upon this subject.

Professor Peirce presented a memoir entitled "Researches in Analytical Mechanics. No. I. Upon the Fundamental Principles of Mechanics." In this memoir, the various principles which have been proposed and adopted as a basis of the science are discussed historically and philosophically, and a new form is proposed, which is thought by the author to be more general, and less exceptionable than the others which have been given. "A system of bodies in motion," he re-